Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
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Review of the Emergency Alert System	)	EB Docket No. 04-296
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COMMENTS OF STATIONS WTOP (AM), WTOP-FM, AND WXTR (AM)

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SUMMARY

Stations WTOP(AM), WTOP-FM, and WXTR(AM) (collectively, "WTOP") commend the Commission for initiating this proceeding to examine the effectiveness of the current Emergency Alert System ("EAS") as a reliable public warning mechanism. WTOP(AM) is the Primary One ("LP1") station for the Washington, D.C., metropolitan market, and WTOP is committed to serving the public by providing information and warning in times of emergency and natural disaster. WTOP bases its comments on its own experience with EAS.

We believe that broadcaster and cable participation in an emergency warning system is critical to our nation and should be mandatory. In our opinion, however, the current EAS system is not only outdated but its infrastructure and architecture are fatally flawed and must be replaced. The current EAS relies on hardware designed a decade ago that is not user-friendly and is prone to failure. The current EAS also is reliant on firmware that is subject to glitches and is difficult to upgrade. Moreover, the current hierarchical, daisy-chain system of relaying messages from one broadcaster to another does not work as reliably as necessary, especially when up-chain stations go off the air or choose not to air a warning because the warning is not geographically relevant to them.

The preferred alternative to the current daisy-chain system would be an interactive, secure, addressable, point-to-point (or point-to-multipoint), distribution method in which national, state and local government agencies transmit alerts directly to the geographically relevant broadcast stations and cable operators without intervening relay stations. Primary distribution of emergency alerts via satellite with an alternate backup channel is the most secure, robust and technically feasible method of accomplishing this.

We believe that it is essential that a central federal authority oversee and create guidelines for State and local EAS plans. WTOP supports both mandatory training, so long as such training is funded by the overseeing federal agency, and periodic testing of the system on all levels: national, State, and local. The Department of Homeland Security appears to be the logical choice to take the lead in this important function, although there still will be roles for the FCC, the Federal Emergency Management Agency, and the National Weather Service.

WTOP believes that broadcast repeater stations and 100% simulcast stations which currently enjoy EAS exemptions should continue to be exempt and that there is no justification for increasing the maximum EAS fine to the confiscatory level proposed.

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Stations WTOP(AM), WTOP-FM and WXTR(AM) (collectively, "WTOP") [1] hereby file their comments on the above-captioned Notice of Proposed Rulemaking relating to the Emergency Alert System ("EAS"). [2]

WTOP broadcasts all-news programming on 1500 AM in Washington, D.C., with a simulcast on WTOP-FM 107.7 in Warrenton, Virginia and WXTR(AM) 820 in Frederick, Maryland. WTOP(AM) is the Local Primary One ("LP1") station for the Washington metropolitan area. WTOP is committed to its role as a community broadcaster in the nation's capital, and as a critical source for public information and warning in times of emergency and natural disaster. The following comments and observations are based on our own experiences with EAS (the NPRM paragraph number and a brief summary of the discussion and questions posed in each paragraph precedes our comment).

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[1] These stations are licensed to Bonneville Holding Company and operated by its affiliate Bonneville International Corporation.

[2] *Review of the Emergency Alert System,* Notice of Proposed Rulemaking EB Docket No. 04-296, FCC 04-189 (August 12, 2004) ("NPRM").

(Paragraph 3) Should broadcaster and cable participation in State and Local EAS be made mandatory?

We believe that broadcaster and cable participation in an emergency warning system should be mandatory. We agree with the Commission's assertion that "the permissive nature of EAS at the state and local level has resulted in an inconsistent application of EAS as an effective component of overall public alert and warning system." We further agree with the Commission's implication, in paragraph 24 of the NPRM, that the credibility of EAS as a whole is damaged by its voluntary nature and its inconsistent application. Since public faith in any emergency warning system is critical to its effectiveness, we believe mandatory participation is warranted.

(Paragraph 4) Is the EAS technologically outdated? If so, what should replace it?
(Paragraph 20) What is the efficacy of EAS in an age when the communications landscape has evolved from what it was when EAS predecessors – and EAS itself – were originally conceived?

We believe emphatically that the current EAS system is not only outdated, but that its infrastructure and architecture are fatally flawed and must be replaced. The original concept of the current EAS is already ten years old, meaning it predates such common technologies as widespread Internet usage, the proliferation of cell phones and other handheld communication devices, many emerging distribution channels for broadcasters (DTV, digital radio, satellite radio, etc.) and even many of today's news outlets, such as the national cable news stations, local all-news TV stations, and the explosion in the last 10 years of news/talk radio stations.

The current EAS also relies on hardware designed a decade ago which in some cases is prone to failure, firmware glitches and user error. The firmware is difficult to upgrade, and there is no way for anyone – the public, the FCC, the Federal Emergency Management Agency

("FEMA"), local emergency managers or anyone else – to know if a broadcaster is using the latest firmware or activation codes. In fact, there is very little accountability built into the system for the broadcasters or emergency managers. Further, the current system has no meaningful federal oversight authority. There is also no direct oversight body for EAS on the state or local level, which has resulted in systemic problems going unfixed (and inconsistent application of the system as described in our comments to paragraph 3). All of the stakeholders in the system – broadcasters, emergency managers, law enforcement and others – have had to make decisions on their own, without guidance or supervision.

The EAS system should be replaced with an interactive, point-to-point (or point-to-multipoint) addressable, secure notification system capable of harnessing both existing technologies (analog broadcasting) and emerging ones (SMS messaging, digital broadcasting, and others). The new system should utilize secure, robust and redundant delivery pathways, and be user-friendly to broadcasters. It should be software-based so that updates can be readily performed either by broadcasters themselves or by a central authority, which should be charged with overseeing the entire system.

The EMnet system created by Communications Laboratories, Inc, addresses many of these issues. EMnet has already been deployed in state emergency management agencies in 11 states including the District of Columbia, and at hundreds of radio and TV broadcasters across the mid-Atlantic, Florida and the Midwest.

(Paragraph 21) Both the MSRC and PPW (two government/industry groups that studied the EAS and made recommendations to the FCC) advocate upgrading, not replacing, the EAS.

We reject the idea that EAS in its current form can be upgraded in any meaningful way which will increase its effectiveness or eliminate the problems which plague it. Many of the

problems with the EAS are systemic and cannot be repaired with band-aid solutions or simple "upgrades." The difficulty in training a broadcaster's staff members in the use of EAS hardware by any manufacturer is not something that can be fixed with an upgrade. The failures which occur in the daisy-chain system cannot be repaired by improvements to its existing architecture (see our response to paragraph 27 below). The system is flawed at its core and must be replaced. The best course of action at this time is to start from scratch with a new plan, new infrastructure, and new technology.

(Paragraphs 22 & 23) Should a single federal agency (Department of Homeland Security was suggested) take the lead role in the future of EAS? Should federal agencies remain involved in the EAS? Should a new public/private partnership be created to help oversee alerting?

We endorse the Partnership for Public Warning's ("PPW") suggestion of charging the Department of Homeland Security ("DHS") with overseeing a *new warning system, not the current EAS.* A central authority to oversee and create guidelines on the national, state and local level is critical to the success of such a system, and DHS is the natural choice.

There are still roles for the FCC, FEMA and the National Oceanic and Atmospheric Administration ("NOAA") to play. The FCC may still be in charge of ensuring the compliance of broadcasters, but under the direction of DHS; FEMA may still have a stake in the system and certainly should have the ability to issue alerts in appropriate circumstances; and NOAA should continue to issue weather watches and warnings through the new system. Specifically, while NOAA should be permitted to continue to operate its Weather Radio system, NOAA's infrastructure should not be used as part of the new system. It should be an information input source, but not a part of the warning architecture.

The creation of any kind of new public/private partnership to help oversee alerting would only add more "red tape" and bureaucracy to the system. WTOP recommends that DHS take the lead – it is that agency's area of expertise.

(Paragraph 24) Should the FCC adopt rules to require broadcasters to make their facilities available to local emergency managers? Or should there be incentives to encourage broadcasters and cable to participate? Under this scenario, to avoid overuse, should there be a federal rule establishing a standard regarding when state emergency managers may or must activate EAS? Should the use of any existing voluntary EAS codes now be mandated?

We wholeheartedly agree with and accept the Commission's belief that the dissemination of emergency information is an important service provided by broadcasters. We believe that broadcasters have no higher calling than to help save lives in times of crisis. And as noted above, we believe that broadcaster participation in state and local emergency warning systems should be mandatory, to the extent that broadcasters should be required to carry all emergency warnings of a certain threshold, as well as to conduct tests as necessary.

However, we do not believe that the Commission should adopt rules requiring broadcasters to make their *facilities* available to local emergency managers. Such a mandate undermines the autonomy and independence of broadcasters (not to mention their technical expertise in running their own operations) and places an undue burden of responsibility on emergency managers or other local authorities.

Indeed, conversations we have had with emergency managers suggest *they do not want this authority* for exactly these reasons. Imposing such a uniform requirement on broadcasters may also undermine the credibility of the system; local emergency managers and broadcasters working together in a relationship of cooperative trust will instill greater public confidence than one in which agents of the government take over a broadcaster's facilities.

Establishing a federal rule regarding when state emergency managers may or must activate an emergency warning system, even to avoid overuse, is an inappropriate "one-size-fits-all" solution for a wide variety of potential situations that require different responses, both by broadcasters and emergency managers. It would be subject to constant second-guessing, review and modification, resulting in confusion.

Another question in this paragraph, regarding whether or not the use of voluntary EAS codes should be mandated, pre-supposes the continued existence of EAS, which we do not support. However, since any emergency warning system would likely feature some coding system to distinguish among different types of emergencies, we do accept and believe that there are some emergency codes which should be mandated. This would best be determined by the overseeing agency of the new system.

The best course of action is to require broadcasters to participate in state and local warning systems, and to mandate that certain emergency messages be carried, but to allow broadcasters to voluntarily make their facilities available for local authorities as the situation dictates.

(Paragraph 25) Should the FCC require State and Local EAS Plans? (They are now not required.) Should the FCC establish national guidelines and standards for these Plans? Should the SECC and LECC structure still be generating such Plans? If not, who? Should periodic updating of Plans be required? If so, how often? Should adjacent states implement standardized EAS Plans for better coordination? Should multi-state regions be defined and Plans developed for them? Should there be reporting requirements for EAS activations to develop reports?

We believe that whatever federal agency will oversee an emergency warning system – be it DHS, FCC, FEMA or whoever – should require state and local emergency warning plans and should have enforcement authority when such plans are not forthcoming. It is necessary for this agency to establish national guidelines for such plans and to require that they be updated at regular intervals. However, the specifics of each plan should be left up to state and local

jurisdictions; the overseeing agency should only establish a national baseline, or minimum standard. The State Emergency Communication Committee ("SECC") and Local Emergency Communications Committee ("LECC") structure could be used for creating these plans.

It has been our experience that plans involving multi-state regions are not effective. They take too long to create and implement, and are hampered by political concerns. Each state must develop its own plan for the jurisdictions within its borders, but must also coordinate with adjacent states so that there are sufficient commonalities or grounds of agreement that broadcasters whose signals cross state boundaries can effectively help both states disseminate their warning messages. This is why a national baseline standard is critical.

Whether or not there should be a reporting requirement for warning system activations should fall to the overseeing agency, again preferably DHS.

(Paragraph 26) Should all EAS participants be required to monitor National Weather Service ("NWS") signals where available? Should broadcasters still be able to activate the EAS without local emergency management concurrence? If so, should the FCC establish standards for doing so?

It is our opinion that all participants in EAS or any subsequent public warning system should be required to monitor the National Weather Service in some way, either by NWS radio, EMWIN, or some other means, if possible. Based on our experience, the vast majority of alerts that a public warning system will forward to the public will be weather-related. Many of these advise the public of truly life-threatening situations, such as tornado warnings, flash flood warnings and so forth. Monitoring NWS is critical to getting this information out.

Aside from such weather warnings, we feel strongly that broadcasters should not have the authority to activate EAS or any "official" public alert without the concurrence of local, regional or national emergency managers. Determining the nature of public emergencies is not

broadcasters' area of expertise, and we would highly prefer that those decisions be left to those best qualified to make them. Accordingly, we feel there is no need for the FCC or anyone else to establish standards for broadcasters to activate an alert.

(Paragraph 27) How do we improve on the EAS "daisy-chain" distribution system? Should the originating local agencies transmit alerts directly to as many stations and cable systems as possible without intervening relay stations? Should satellite, or other new technologies, be used to distribute the EAS? Is there still a need for the national 34-station PEP (Primary Entry Point) system?

We consider these questions to be perhaps the most critical in this EAS discussion. The fragility and resulting lack of confidence in the daisy-chain system are at the core of the EAS's ineffectiveness and are among the primary reasons why the current EAS needs to be scrapped.

The daisy-chain system, including the PEP system which serves as the "root" of the daisy-chain for national alerts, should be dismantled and replaced. We agree with those who contend that stations down the chain may miss and *are missing* alerts and tests, and that this problem would prevent even a national alert from reaching these downstream stations. In fact, the alert may not even reach certain *LP1* stations because they cannot monitor their designated PEP station due to reception limitations imposed by terrain and because there are simply not enough PEP stations to effectively cover the US.

The daisy-chain system does not work for several reasons:

- Down-chain stations do not receive some messages from up-chain stations because those up-chain stations choose not to air them. In some cases the emergency message that needs to be passed to a down-chain station is not geographically relevant to the up-chain station, so it is perfectly understandable and logical that the up-chain station would not air it.

- If one up-chain station, particularly a PEP station, is taken off the air, the entire chain "beneath" that station falls apart.
- Mid-chain stations are sometimes not able to pass along emergency messages in a timely manner because of hardware limitations. For example, when messages from the NWS are coming in one right after another (as often happens in severe weather), it is impossible to send an outgoing EAS message on some endecs until the incoming messages stop. This often results in critical delays in getting out urgent life-saving messages – such as tornado warnings – even at the LP1 level. This is completely unacceptable.
- The current EAS hardware is very user-unfriendly at best, and at times can frustrate even an experienced engineer. As a result, the endecs at some stations are not operated correctly because the stations are unattended or staffed by people with no training or experience. If the endec is not operated properly, the chain breaks.
- Problems with some popular EAS hardware prevent the system from working correctly. For example, we have seen emergency and location codes lost from memory, firmware glitches prevent the endec from operating as designed, and systemic design flaws preventing the hardware from behaving in a manner consistent with common sense, despite numerous firmware upgrades over the past ten years.

A better solution to the daisy-chain system would be an interactive, secure, addressable, point-to-point distribution method in which national, state and local agencies transmit alerts directly to the *geographically relevant* broadcast stations and cable operators without intervening relay stations. Primary distribution via satellite with an alternate backup channel is the most secure, robust and technically feasible method of accomplishing this. FIPS codes can be used to

address information to exactly those areas which need to receive it, and no one else. The user interface should be friendly, logical and easily understood and should be software-driven so it is easily and remotely upgradeable.

As noted in our response to paragraphs 4 and 20 above, the EMnet system from Communications Laboratories appears to meet all of these requirements.

(Paragraph 28) Should the FCC require all stations and cable operators to upgrade their EAS equipment to incorporate the new EAS Event and Location Codes adopted in 2002? (It is now voluntary.)

If EAS is to remain the system in use, rather than establishing a new, better system, then broadcasters and cable operators should be required to upgrade their equipment to the latest codes. (The fact that this requirement would be so troublesome for some operators is further indication of the need for a more user-friendly system.)

(Paragraph 30) Should AM/FM IBOC digital radio be required to carry EAS on analog, digital or all program streams?

We believe that IBOC digital radio should be required to carry EAS on all program streams. As IBOC becomes more popular and the public begins to listen to side-channel programming on IBOC digital radio stations, the effectiveness of EAS (or any emergency messages) carried on analog program channels will be reduced.

Forced-tuning is one method of insuring that emergency messages are guaranteed to reach the listening public, and we support it in principle. We recognize that there are technical details to be worked out regarding this technology.

(Paragraph 41) EAS Security issues: How can we improve the security of EAS distribution methods, information, and equipment? Should the FCC require the use of password protection on all EAS encoders? How can the authenticity of EAS messages be verified and/or how can broadcasters be protected from liability issues if they inadvertently rebroadcast a false or incorrect message?

The security of EAS distribution channels, in order to protect the integrity of EAS messages, is crucial to the system working properly. The current EAS system is notoriously insecure and is vulnerable to intrusion, hacks, intercepted messages, and message-spoofing.

The security of emergency and test messages can be improved by switching to a "closed" system which encrypts messages and guarantees secure delivery with password protection, and which also provides confirmation of delivery. In such a system the authenticity of messages need never be questioned or even verified by the recipient. Thus the issue of broadcaster liability is a moot point because the liability is passed up the chain to the issuing authority (i.e., local emergency manager, etc.).

(Paragraph 42) Is the exemption of broadcast repeater stations from having EAS equipment when their main hub station complies with EAS (thus precluding the repeater station from participating in some state or local alerts) a detriment to the EAS network?

We feel very strongly that broadcast repeater stations and 100%-simulcast stations which currently enjoy EAS exemptions should continue to be exempt. In nearly all such cases in which a broadcaster has an exemption for a translator, repeater or 100%-simulcast station, the broadcaster already monitors at its EAS-equipped hub station the LP1 station in the locality of the repeater. Thus eliminating the exemption for these stations would not accomplish anything but would place an additional financial and technical burden on the broadcaster.

(Paragraph 43) Should there be periodic testing of the National EAS, from the PEP stations on down?

Whether EAS continues to exist or is replaced by a better system, we support periodic testing (perhaps monthly) of the system on all levels: national, state and local.

(Paragraph 44) Should there be periodic mandatory EAS training of broadcast and cable system personnel?

We agree strongly with those who have brought to the Commission's attention the problems with staff training, particularly in broadcast operations where staff turnover may be high. We agree that the EAS system and equipment are difficult to learn and use during actual emergencies and that the infrequent use of the system results in staff members being unable to use it properly when necessary. We would accept the idea of mandatory training *provided such training is funded by the overseeing federal agency.*

A federal agency (ideally DHS) should oversee a more user-friendly system and offer training seminars to appropriate station personnel. These personnel would not only be taught how to use the system, but would also be taught the best methods to use to train their staff members.

(Paragraph 45) Should the level of EAS participation required be dependent on the size of the broadcast or cable company? If so, what effect would this have on the usefulness of the EAS?

We do not believe that the end goals of EAS or any emergency warning system would be served by tying the level of broadcaster participation to the size of the broadcast company. In fact, we feel that doing so would limit the effectiveness of the system, particularly in rural areas where the only broadcast station may be a small operation which would fall beneath the ideal required participation level for that area.

(Paragraph 46) Should the maximum FCC EAS fine be increased from $32,500 to $325,000?

We strongly oppose the idea of increased fines for EAS violations. Most broadcasters already support and implement EAS to the best of their ability. Even the current maximum fine

is sufficient to put a small station out of business. The new proposed maximum fine is confiscatory and sufficient to create financial hardship for even a mid-sized radio station. We contend that increased fines will not increase EAS compliance and thus will not serve the public interest.

Summary

In conclusion, we respectfully submit to the Commission that the current EAS is fatally flawed in its design and broken beyond repair in its implementation for the following reasons:

- the fragility and inefficiency of the daisy-chain system;
- design flaws and unreliability in some EAS hardware;
- the unfriendly user interface and problems with user training and technical expertise required to operate the hardware;
- the lack of an overseeing federal authority other than FEMA on the national level;
- the lack of a secure, guaranteed method of message delivery;
- the failure to address any new technologies which have appeared in the ten years since the current system was designed and deployed.

We ask that the Commission retire the current EAS system and replace it with a system that addresses all these failings.

Respectfully submitted,

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